



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0788; Project Identifier AD-2021-00489-T; Amendment 39-22063; AD 2022-11-13]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-700, -800, and -900ER series airplanes. This AD was prompted by reports of incorrectly installed fuselage skin fasteners. This AD requires a detailed inspection of a certain body station bulkhead, between certain stringers, for any incorrectly installed fastener common to fuselage skin, and applicable on-condition actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch,

2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0788.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0788; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Bill Ashforth, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3520; email: bill.ashforth@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-700, -800, and -900ER series airplanes. The NPRM published in the *Federal Register* on October 13, 2021 (86 FR 56840). The NPRM was prompted by reports of incorrectly installed fuselage skin fasteners found at the station (STA) 727 bulkhead. This condition was the result of incorrect procedures used to install affected fasteners during airplane production that occurred within a certain time period. In the NPRM, the FAA proposed to require a detailed inspection of STA 727 body station bulkhead, between stringers S-22 and S-27, for any incorrectly installed fastener common to fuselage skin, and applicable on-condition actions. The FAA is issuing this AD to prevent continuous operation of the

airplane with undetected incorrectly installed fasteners, which may generate fatigue cracking that could adversely affect the structural integrity of the airplane.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Boeing, United Airlines, Air Line Pilots Association, International, and an individual commenter, who supported the NPRM without change.

The FAA received additional comments from two commenters, including Aviation Partners Boeing and Delta Air Lines (DAL). The following presents the comments received on the NPRM and the FAA's response.

Effects of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing and DAL commented regarding the installation of blended or split scimitar winglets per Supplemental Type Certificate (STC) ST00830SE and the effect of that installation on compliance with the proposed actions. DAL further requested a change to paragraph (c) of the proposed AD to clarify that the installation of STC ST00830SE does not affect the accomplishment of the manufacturer's service instructions.

The FAA agrees to clarify that the installation of winglets per STC ST00830SE does not affect the accomplishment of the manufacturer's service instructions. Therefore, the installation of STC ST00830SE does not affect the ability to accomplish the actions required by this AD. Operators of airplanes with these winglets do not need to request a "change in product" alternative method of compliance (AMOC) approval as specified in 14 CFR 39.17. The FAA has redesignated paragraph (c) of the proposed AD as paragraph (c)(1) of this AD, and added paragraph (c)(2) to this AD accordingly.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020. This service information specifies procedures for a detailed inspection for incorrectly installed fasteners at the STA 727 bulkhead outer chord common to the fuselage skin between stringers S-22 and S-27 on the left and right sides, and applicable on-condition actions. In addition to repair and replacement, on-condition actions include repetitive inspections for cracking of the fuselage skin between stringers S-22 and S-27; an open hole high frequency eddy current (HFEC) inspection for cracking at all incorrectly installed fastener locations; and external and internal general visual inspections for repairs of the STA 727 bulkhead. On-condition actions also include repetitive HFEC and low frequency eddy current (LFEC) inspections in unrepaired areas for cracking of the inner skin from the wheel well; of the outer, upper, and lower chords from the wheel well; and of the fail-safe chord from the cargo compartment.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 78 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	13 work-hours X \$85 per hour = \$1,105	\$0	\$1,105	\$86,190

The FAA estimates the following costs to do any necessary actions that would be required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need these on-condition actions.

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Open hole HFEC inspections	21 work-hours X \$85 per hour = \$1,785 per inspection cycle	\$0	\$1,785 per inspection cycle
HFEC and LFEC inspections	36 work-hours X \$85 per hour = \$3,060 per inspection cycle	\$0	\$3,060 per inspection cycle

The FAA has received no definitive data on which to base the work-hour estimates for the repair and replacement specified in this AD. The cost of any required fasteners, which are operator supplied, would be minimal.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-11-13 The Boeing Company: Amendment 39-22063; Docket No. FAA-2021-0788; Project Identifier AD-2021-00489-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-700, -800, and -900ER series airplanes, certificated in any category, and identified in Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of incorrectly installed fuselage skin fasteners. The FAA is issuing this AD to address incorrectly installed fasteners. This condition, if not addressed, could result in incorrectly installed fasteners going undetected. Continuous operation of the airplane with undetected incorrectly installed fasteners may generate fatigue cracking that could adversely affect the structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified by paragraph (h) of this AD: At the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020.

Note 1 to paragraph (g): Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 737-53A1384, dated September 10, 2020, which is referred to in Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020.

(h) Exceptions to Service Information Specifications

(1) Where the Compliance Time column and the notes of the tables in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020, use the phrase “the Original Issue date of Requirements Bulletin 737-53A1384 RB,” this AD requires using “the effective date of this AD.”

(2) Where Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020, specifies contacting Boeing for repair instructions or for alternative inspections: This AD requires doing the repair, or doing the alternative inspections and applicable on-condition actions, using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in

paragraph (j) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by The Boeing Company Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO Branch, FAA, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

For more information about this AD, contact Bill Ashforth, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3520; email: bill.ashforth@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Requirements Bulletin 737-53A1384 RB, dated September 10, 2020.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd.,

MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet

<https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on May 25, 2022.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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